

deployed antenna when 5 to 200 watts of electromagnetic energy is delivered from the electromagnetic energy source to the multiple antenna ablation device;

[a movable insulation sleeve disposed over at least a portion of one of an antenna or the trocar, the insulation sleeve configured to vary a length of an energy delivery surface];

an impedance monitor device coupled to the multiple antenna ablation device;

an antenna advancement member coupled to the three or more antennas and sufficiently rigid to move in a linear direction along the longitudinal axis of the trocar to simultaneously advance the three or more antennas from the trocar; and

at least one cable coupled to the multiple antenna ablation device.

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27. (Thrice Amended) An ablation treatment apparatus, comprising:

an electromagnetic energy source;

a trocar including a distal end, and a hollow lumen extending along a longitudinal axis of the trocar;

a multiple antenna ablation device including a plurality of antennas positionable in the trocar lumen and deployable from the trocar lumen in a lateral direction relative to the longitudinal axis at a selected tissue mass, the antennas configured to create substantially the same geometric ablation shape independent of distance deployed from the distal end of the introducer, wherein the plurality of antennas includes a sufficient number of antennas to create an ablation volume between the antennas in the selected tissue site without impeding out the plurality of antennas when 5 to 200 watts of electromagnetic energy is delivered from the electromagnetic energy source to the plurality of antennas;

[a movable insulation sleeve disposed over at least a portion of one of an antenna or the trocar, the insulation sleeve configured to vary a length of an energy delivery surface]; and

at least one cable coupling the multiple antenna ablation device to the electromagnetic energy source.

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36. (Twice Amended) A method for creating a volumetric ablation in a selected tissue mass, comprising:

providing a multiple antenna ablation apparatus including a trocar with a trocar lumen and a trocar tissue piercing distal end, a plurality of antennas deployable from the lumen, an antenna advancement member, [a movable insulation sleeve disposed over at least a portion of one of an antenna or the trocar] the antennas configured to create substantially the same geometric ablation

shape independent of distance deployed from the distal end of the introducer; and an electromagnetic energy source coupled to the plurality of antennas;

inserting the trocar into the selected tissue mass with the plurality of antennas positioned in the trocar lumen;

moving the antenna advancement member in a linear direction relative to a longitudinal axis of trocar to simultaneously advance the plurality of antennas with curvature from the trocar lumen in a lateral direction relative to a longitudinal axis of the trocar into the selected tissue mass

delivering 5 to 200 watts of electromagnetic energy from the electromagnetic energy source to the plurality of antennas without impeding out an antenna of the plurality of antennas;

detecting impedance; and

creating the volumetric ablation in the selected tissue mass.

45. (Amended) An ablation treatment apparatus, comprising:

a trocar including a tissue piercing distal end, and a hollow lumen extending along a longitudinal axis of the trocar;

a multiple antenna ablation device configured to be coupled to an electromagnetic energy source, the multiple antenna ablation device including three or more antennas positionable in the lumen and deployable from the trocar lumen with curvature in a lateral direction relative to the longitudinal axis at a selected tissue mass, the antennas configured to create substantially the same geometric ablation shape independent of distance deployed from the distal end of the introducer, each of a deployed antenna having an electromagnetic energy delivery surface configured to create a volumetric ablation between the deployed antennas without impeding out the deployed antenna when 5 to 200 watts of electromagnetic energy is delivered from the electromagnetic energy source to the multiple antenna ablation device, at least one of the antenna having an impedance sensing portion.

an impedance monitor device coupled to the multiple antenna ablation device, wherein the impedance monitoring device and multiple antenna ablation device can determine an impedance property of a tumor;

an antenna advancement member coupled to the three or more antennas; and

at least one cable coupled to the multiple antenna ablation device.